# Recombinant HDGR2 protein (His tag)

| | |
|---|---|
| **Catalog Number** | 543009 |
| **Synonyms** | HDGF-related protein 2; HRP-2; Hepatoma-derived growth factor 2; HDGF-2 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q7Z4V5 |
| **Molecular Weight** | Predictes a molecular mass of 12.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band. |

## Product Information

| | |
|---|---|
| **Sequence Region** | 1-91 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >86%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 1-91 aa (Q7Z4V5) were fused with 6His tag. |

## Storage & Handling

| | |
|---|---|
| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

| | |
|---|---|
| **Description** | Recombinant Human HDGFL2 (HRP-2) Fragment (1-91) is a high-purity protein designed for studying the PWWP domain's role in chromatin regulation and DNA repair. This fragment serves as an essential tool for investigating epigenetic mechanisms, myogenesis, and homologous recombination pathways.<br>Hepatoma-derived growth factor-related protein 2 (HRP-2), encoded by the HDGFL2 gene, functions as an epigenetic regulator that promotes myogenesis by cooperating with DPF3a to recruit the BAF complex and enhance chromatin accessibility at myogenic gene promoters. It also facilitates DNA double-strand break repair via homologous recombination by aiding RBBP8 recruitment to damage sites and binds to chromatin marked by H3K9me3, H3K27me3, and H3K36me2 modifications. Additionally, HRP-2 is involved in cellular growth control through cyclin D1 expression regulation. The protein localizes to the nucleus, where it exerts its primary functions in gene regulation and genome maintenance. |